

D&D Technologies Demonstrated and Deployed

The following technologies have been demonstrated in the past as part of completed or ongoing Large-Scale Demonstration and Deployment Projects (LSDDP). Many of these technologies have been subsequently deployed at one or more site, and some are now considered the new baseline technology for some applications. Additional information on these technologies can be found on the D&D Focus Area homepage (<http://www.netl.doe.gov/dd/>), within the EM-50 Technology Management System (<http://ost.em.doe.gov/tms/Home/Entry.asp>), and within the Innovative Technology Summary Reports located on the EM-50 homepage (<http://ost.em.doe.gov/ifd/ost/pubs.htm>).

Pipe Explorer™ Surveying System (ID: 74)
Portable X-Ray, K-Edge Heavy Metal Detector (ID: 134)
Field Raman Spectrograph (ID: 873)
Lead TechXtract Chemical Decontamination (ID: 1450)
2-D Linear Motion System (ID: 1476)
Empore™ Membrane Separation Technology (ID: 1543)
Steam Vacuum Cleaning (ID: 1780)
Rosie: Mobile Teleoperated Robot System (ID: 1799)
VecLoader HEPA Vacuum Insulation Removal (ID: 1784)
Dual Arm Work Platform Teleoperated Robotics System (ID: 1787)
Portable X-Ray Fluorescence Spectrometer (ID: 1790)
Gamma Ray Imaging System (ID: 1793)
Mobile Integrated Temporary Utility System (ID: 1795)
Starbolt (TM) Flashlamp (ID: 1796)
Mobile Automated Characterization System (ID: 1798)
High Speed Clamshell Pipe Cutter (ID: 1807)
Pipe Crawler Internal Piping Characterization System (ID: 1810)
Piping Inspection (ID: 1811)
Rotary Peening with Captive Shot (ID: 1812)
Swing-Reduced Crane Control (ID: 1815)
Urethane Foam Void Filling (ID: 1816)
Reactor Surface Contamination Stabilization (ID: 1839)
Gamma Cam (TM) Radiation Imaging System (ID: 1840)
Low-Density Cellular Concrete Void Filling (ID: 1846)
Oxy-Gasoline Torch (ID: 1847)
Centrifugal Shot Blasting (ID: 1851)
Field Transportable Beta Spectrometer (ID: 1853)
FRHAM-TEX Anti Contamination Suit (ID: 1854)
NuFab Anti Contamination Suit (ID: 1855)
Personal Ice Cooling System (PICS) (ID: 1898)
Soft Media Blast Cleaning (ID: 1899)
Position Sensitive Radiation Monitoring (Surface Contamination Monitor) (ID: 1942)
ROTO PEEN Scaler and VAC PAC System (ID: 1943)
Pegasus Coating Removal (ID: 1945)
Indoor Radiation Mapping Using Laser Assisted Ranging and Data System (ID: 1946)

System for Tracking Remediation, Exposure, Activities and Materials (STREAM) (ID: 1947)
Self Contained Pipe Cutting Shear (ID: 1948)
Concrete Shaver (ID: 1950)
Heat Stress Monitoring System (ID: 1953)
Sealed-Seam Sack Suit (ID: 1954)
Advanced Recyclable Media System (ID: 1971)
Laser Induced Fluorescence Imaging (ID: 1999)
In Situ Object Counting System (ID: 2098)
Remotely Operated Scabbling (ID: 2099)
Remote Control Concrete Demolition System (ID: 2100)
Concrete Grinder (ID: 2102)
RESRAD-Build (ID: 2103)
Wireless Remote Radiation Monitoring System (WRRMS) (ID: 2104)
Liquid-Nitrogen Cooled Diamond-Wire Concrete Cutting (ID: 2107)
Remote Underwater Characterization System (RUCS) (ID: 2151)
Concrete Spaller (ID: 2152)
Compact Subsurface Investigation System (ID: 2153)
Concrete Dust Suppression System (ID: 2154)
Soft-Sided Waste Containers (ID: 2240)
Mobile Work Platform (ID: 2243)
Direct Reading Tritium Monitor (ID: 2310)
Lumi-Scint Liquid Scintillation Counter (ID: 2311)
Water Solidification (ID: 2312)
Oil Solidification (ID: 2313)
ALARA 1146 Strippable Coating (ID: 2314)
E-PERM Alpha Surface Monitor (ID: 2315)
Lead Paint Analyzer (ID: 2317)
Excel Automatic Locking Scaffold (ID: 2320)
En-Vac Robotic Wall Scabbler (ID: 2321)
Long Range Alpha Detection for Component Monitoring (ID: 2382)
Electromagnetic Radiography (ID: 2390)
Size Reduction Machine (ID: 2395)
AeroGo Air Lift Pallet System (ID: 2396)
The NITON XL-800 Series Multi-Element Spectrum Analyzer (Alloy Analyzer) (ID: 2397)
XRF Analysis of PCBs and Inorganics (ID: 2398)
Waste Crate and Container Imaging Using the Vehicle and Cargo Inspection System (ID: 2912)
Paint Scaler (ID: 2952)
Mega-Tech Hydraulic Shears (ID: 2953)
Global Positioning Radiometric Scanner System (ID: 2954)
Pipe Crimping System (ID: 2955)
Nukem Copper Recycle System (ID: 2958)
Mobile Characterization System for Large Crates (ID: 2959)
Tritium Clean-up Cart (ID: 2974)
Surveillance and Measurement System (SAMS) (ID: 2977)

In addition to the technologies demonstrated as part of an LSDDP, the D&D Focus Area has supported the demonstration and deployment of the following technologies through site-specific applications and the EM-50 Accelerated Site Technology Deployment program.

CDI Remote Characterization System (Andros Mark VI) (ID: 2178)
Decommissioning In-Situ Plutonium Inventory Monitor (DISPIM) (ID: 2241)
Cogema 3-D Gamma Imaging (ID: 2302)
Track Mounted Shear/Crusher (ID: 2303)
Hand Held Shear (ID: 2304)
D&D and Remediation Optimal Planning System (DDROPS) (ID: 2322)
Diamond Wire Cutting of the Tokamak Fusion Test Reactor Vacuum Vessel (ID: 2389)
3-D Visual and Gamma Ray Imaging System (ID: 2402)
Non-Intrusive Liquid Level Detection System (ID: 2403)
NURES Nuclide Removal System (ID: 2937)
Quantrad Scout Gamma Spectroscopy System (ID: 2960)